

# **Cereal and Grass Hosts of the Rice Root Aphid, *Rhopalosiphum rufiabdominalis* (Sasaki), and a Description of an Efficient Greenhouse Rearing Technique<sup>1</sup>**

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**ABSTRACT** The rice root aphid, *Rhopalosiphum rufiabdominalis* (Sasaki) (Homoptera: Aphididae), infests wheat in the southern states. Little is known about the aphid's alternate hosts or appropriate techniques for rearing the aphid. A low-cost technique for large scale rearing of the rice root aphid was developed using a soil-based medium with cedar chips used to cover seeds of the host plant ('Elbon' rye). This approach, which requires minimal labor and no specialized equipment, was used to rear rice root aphids for use in greenhouse tests to evaluate survival and reproduction on selected grasses and cultivated cereals. 'Elbon' cereal rye and Altai wildrye were determined to be the most suitable hosts among 15 on the basis of reproductive rates and aphid survival. These cereals were followed by TAM 110 wheat, OK 91806 barley, and 'Okay' oats. Rice and sorghum were poor hosts, whereas corn was a nonhost. Generally, grasses were inferior hosts for rice root aphids when compared with cultivated cereals. The results of the present study indicate that this aphid can infest numerous cultivated and uncultivated Graminae and suggest that further research is warranted to determine the status of the rice root aphid as an economic pest of cultivated cereals.

**KEY WORDS** cultivated cereals, forage grasses, plant hosts, rearing technique

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